

## Chapter 9

# Creating a More Dementia-Friendly Environment

*As elders age in place, many will experience dementia either in themselves or their spouses. A dementia-friendly environment allows these residents to remain independent far longer than an unfriendly environment. Dementia-friendly designs accommodate both the sensory changes associated with normal aging and the cognitive changes associated dementia.*

### General Principals of Good Design for Older Persons

Body System	Changes Commonly Observed	Design Implications
Vision	<ul style="list-style-type: none"><li>• Less light reaches retina</li><li>• Slowed adjustment to changes from dark to light</li><li>• Altered color perception</li><li>• Greater sensitivity to glare</li></ul>	<ul style="list-style-type: none"><li>✓ Use brighter illumination</li><li>✓ Provide a place to stand or sit at entrances and brighter light at transition areas</li><li>✓ Blues and green are hard to differentiate</li><li>✓ Use matte treatments on surfaces and control light from windows</li></ul>
Hearing	<ul style="list-style-type: none"><li>• More difficulty hearing higher frequencies (including voices)</li><li>• Reduced ability to discriminate between sounds</li></ul>	<ul style="list-style-type: none"><li>✓ Use sound-absorbing materials, particularly in public areas</li><li>✓ Minimize unnecessary noise</li></ul>
Thermal regulation	<ul style="list-style-type: none"><li>• Increased sensitivity to drafts and chills</li></ul>	<ul style="list-style-type: none"><li>✓ Keep temperatures warm</li><li>✓ Seal windows and doors</li></ul>
Tactile sensation	<ul style="list-style-type: none"><li>• Decreased manual dexterity</li></ul>	<ul style="list-style-type: none"><li>✓ Avoid small door handles, latches, and key rings</li></ul>
Musculoskeletal	<ul style="list-style-type: none"><li>• Diminished strength, more difficult to rise from a chair</li><li>• Lowered stamina, cannot walk as far</li></ul>	<ul style="list-style-type: none"><li>✓ Chairs should have arms that extend to front edge of seat and no cross bar between front legs</li><li>✓ Provide seating along paths</li></ul>
Balance	<ul style="list-style-type: none"><li>• Greater difficulty maintaining balance, particularly in the dark or on uneven surfaces</li></ul>	<ul style="list-style-type: none"><li>✓ Use night-lights</li><li>✓ Provide things to hold on to near bed, bath, and toilet</li></ul>
Gait	<ul style="list-style-type: none"><li>• Feet raised less during walking</li></ul>	<ul style="list-style-type: none"><li>✓ Fix uneven floors and tape down rugs</li></ul>

## **Additional Environmental Design Tips For Dementia**

### **Doors and hallways**

- Hang pictures, photos, or novelty items to personalize apartment doors to help residents differentiate their living space from everyone else's.
- Use realistic graphics and keep signs simple, because the person may not be able to comprehend complex language.
- Use prominent numbers and distinctive artwork at the entryway to elevators to help residents distinguish one floor from another

### **Hallways and floors**

- Make hallways distinct by placing artwork or pieces of furniture at key intersections (if allowed by code).
- Provide handrails in hallways and grab-bars in bathrooms.
- Make sure that floors are not slippery or do not have the appearance of being slippery by being highly polished.
- Provide gradual transitions when changing flooring material (e. g., a transition from a hard surface to carpeting) to minimize falls, and provide a handrail or other support in these areas.
- Avoid using very dark-colored rugs or dark color patches on a patterned rug. The person may interpret these areas as a hole and either attempt to step over (risking a fall) or refuse to traverse (freezing in place).
- Avoid wallpaper and borders with strong, busy patterns.
- Avoid the use of mirrors or mirror tiles.
- Have baseboard treatment (often vinyl) match the color of the lower part of the wall as opposed to the floor.

### **Windows and Steps**

- Place contrasting colored rugs in front of doors or steps to help the individual anticipate staircases and room entrances, but avoid very dark colors.
- Apply colored decals to glass doors and large windows.
- Place a colored stripe on the edge of steps to help the person see each step.

## **Kitchen and Appliances**

- Provide separate power controls for stoves and ovens, and consider automatic shut-off devices for appliances such as an iron, toaster oven and coffee maker.

## **Lighting**

- Create an even level of lighting. Add extra lighting in entries, outside landings, areas between rooms, stairways and bathrooms because changes in levels of light can be disorienting to the individual with Alzheimer's.
- Diffuse bright light. Reduce glare by covering windows with blinds, shades or sheer draperies to block bright sunlight. Avoid using bare light bulbs or clear decorator bulbs without shades.
- Install special lighting. Place night lights in hallways, bedrooms and bathrooms to prevent accidents and reduce disorientation. Illuminated light switches and timers for lights in these areas can also assist the person at night.

## **Bathrooms**

- Locate a toilet adjacent to each public area.
- Increase the contrast between the toilet and floors and walls by changing the color of the flooring or walls or by using a colored toilet seat.
- Increase the contrast between the sink and counter top.
- Use large, easily visible sink handles.
- Set hot water temperatures at 120 degrees and consider installing automatic-mixing or anti-scalding devices to the faucet.

## **Furnishing**

- Minimize crowded furnishings and visual clutter. It will confuse and overstimulate the person.
- Maximize the contrast between the floor and chairs (particularly seats) and between the floor and table surfaces by differences in both color and hue.

## **Sources**

1. *Key Elements of Dementia Care*, Alzheimer's Association and Related Disorders Association, Inc., 1997.

## Resources A nd Further Reading

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1. *The Complete Guide to Alzheimer's-Proofing Your Home*, by Mark L. Warner, Purdue University Press, 1998.
2. *Homes That Help*, by Richard V. Olsen, et al., New Jersey Institute of Technology, 1993.